

The lagrange multiplier technique for variational inequalities

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Abstract

For variational inequalities with the feasible set given by linear or nonlinear convex constraints, analogues of Lagrange multipliers in convex programming are constructed. It is shown that these methods can be interpreted as projection methods for the variational inequality (or a system of nonlinear equations) with the single-valued operator satisfying the condition of reciprocal strong monotonicity; this property guarantees the convergence of the methods suggested for an arbitrary penalty coefficient. Copyright © 2001 by MAIK "Nauka/Interperiodica".
